

Child and Adolescent Nutrition

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Common nutritional problems

■ Obesity

- ❑ Weight-for-height greater than 95th percentile on NCHS growth charts
- ❑ Obesity tends to cluster in families
 - 25 % of 6-17 yr olds are overweight or obese
 - At age 6...25% chance of being obese as an adult
 - At age 12...75% chance of being obese as an adult

Common nutritional problems

- Atherosclerosis
 - May begin in early childhood
 - Experts recommend:
 - Identify and manage individual children who are at risk (family history or have elevated cholesterol levels)
 - Dietary recommendation for population
 - Calories, fat, saturated fat, cholesterol

Common nutritional problems

■ Dental caries

- ❑ Related to the frequency of sugar-containing foods that remain in the mouth
- ❑ Should never give infants or toddlers juice in bottles at bedtime

Common nutritional problems among adolescents

- Adult Onset-Diabetes
- Hypertension

Common nutritional deficiencies among adolescents

- Specific vitamins and minerals:
 - **Calcium**
 - During adolescent growth spurt, 45% of skeletal mass is formed
 - 1300 mg/day
 - **Iron**
 - Needed for expansion of blood volume and muscle mass; menstruation
 - Needs are related to mean body mass: males need more than females (12-15 mg/day)
 - **Zinc**
 - Needed for growth and sexual maturation
 - Girls often consume less than 50% of RDA (12 mg/day)

Barriers to good nutrition at home

- Differing likes and dislikes of family members
 - Children's desire for advertised foods
 - Difficulty of breaking "bad" habits
 - Lack of time to prepare healthy meals
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Environmental Risk: Parental Influence

- Parents are responsible for food availability and accessibility in the home
 - Parents' encouragement to eat promotes fat gain in their children
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Environment Influence: Dietary Intake

- Fast-food chains market to kids
 - ❑ Burger King exec quoted “Providing kids with twice the number of toys...doubles the reasons for kids to visit our restaurant
 - ❑ Ronald McDonald is known to 96% of children in the U.S. and across the globe and speaks over 20 different languages
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Television effects kids!

- It is estimated that American children will see 40,000 TV commercials every year & spend an average of 25 hours per week in front of the TV
 - Food products account for over 50% of ads targeted to children which are mostly sugared cereals, fast food, candy and soft drinks
 - TV viewing hours are related to food requests by children and food purchases by parents
 - TV encourages kids to buy food of low nutritional value and snacking while they watch TV
 - Low physical activity levels have been associated directly with TV viewing and inversely with time spent outdoors
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Lack of physical activity & diet affects kids!

- Nearly half of American adolescents fail to be vigorously active on a regular basis and about 14% report no recent physical activity
 - 46% of daily calories for many adolescents are comprised of sugar and fat
 - In 2001, almost 80% of school children did not consume the recommended 5 or more servings of fruits and vegetables per day
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Child Nutrition

- Nutrition recommendations for children over the age of two differ little from those for adults – our kids should be eating what we eat!
 - However, the recommendations for children may not be as restrictive as those for adults
 - A wide variety of foods rich in essential nutrients are necessary for growing bodies
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Child Nutrition

- Most kids will grow about 2 inches and gain about 4 to 7 pounds per year
 - Between the ages of 6 to 12, kids will grow an average of 1 to 2 feet and almost double in weight.
 - Make available a wide variety of foods and encourage tasting new foods in small quantities without forcing the issue
 - Do not insist that kids "clean their plates."
 - Kids may benefit from choosing their own portion size, provided that the food is wholesome and nutritious.
 - Avoid using food to reward or to punish behavior.
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Teen Nutrition

- Adolescents need extra nutrients to support the adolescent growth spurt
 - Girls begin at 10 or 11 yrs, reach peak at age 12, completed by about age 15
 - Boys begin at 12 or 13 yrs, peak at age 14 and end by about age 19
 - Teens' caloric needs vary depending on their growth rate, degree of physical maturation, body composition and activity level
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Teen Nutrition

- Adequate amounts of iron and calcium are important!
- Both males and females are encouraged to consume a calcium-rich diet (1,300 milligrams daily) in order to ensure adequate calcium deposits in the bones.
- Eating at least three servings of dairy products daily, can achieve the recommended calcium intake.
- For persons who don't wish to consume dairy products, a variety of other calcium sources are available such as green, leafy vegetables, calcium-fortified soy products and other calcium-fortified foods and beverages.

Meal Patterns

- Kids and teens should eat at least three meals a day, beginning with breakfast.
 - ❑ Studies show eating breakfast affects both cognitive and physical performance
- Snacks are important!
 - ❑ Young children generally cannot eat large quantities of food at one sitting and get hungry long before the next regular mealtime.
 - ❑ Mid-morning and mid-afternoon snacks are generally advised for this age.
- Fast-growing, active teens may have tremendous energy needs.
 - ❑ Even though their regular meals can be substantial, they still may need snacks to supply energy between meals and to meet their daily nutrient needs.

AHA Dietary Fat Intake Guidelines

For all healthy children and adolescents over the age of about 2 years:

- ❑ **Saturated fat — 7–10% of total calories**
- ❑ **Total fat — an average of no more than 30% of total calories**
- ❑ **Dietary cholesterol — less than 300 milligrams per day (achieved by keeping saturated fat below 10%)**
- Children less than 2 yrs require a higher percentage of calories from fat.
- Toddlers 2 and 3 years of age may safely be moved to the recommended eating pattern as they begin to eat with the family.

Dietary Strategies

- Parent modeling
 - Environmental influences
 - ❑ Reduce TV viewing/video games
 - ❑ Reduce eating out
 - Behavioral Influences
 - ❑ Decrease dietary portion sizes
 - ❑ Increase fiber through fruits and veggies
 - ❑ Decrease fat intake
 - ❑ Decrease soda intake
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Resources

- **NEWS Program**

<http://sgs.ksc.nasa.gov/sgs/sites/other/chs/omehs/occmed/home/index.cfm?page=ChildAndAdolescent>

- **Dietary Guidelines for Healthy Children**

<http://www.americanheart.org/presenter.jhtml?identifier=4575>

- **Kids Nutrition Needs**

http://www.eatright.org/Public/NutritionInformation/92_11722.cfm#Kid's%20Nutrition%20Needs
